

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

CAMBRIDGE.—Mr. R. C. Punnett has been re-elected for three years to a fellowship at Gonville and Caius College, in recognition of his researches in zoology, and Mr. C. M. Doughty, the distinguished Arabian traveller, author of "Arabia Deserta" and other works, has been elected an honorary fellow of the same college.

The general board of studies will proceed shortly to the appointment of a university lecturer in pathology in connection with the special board for medicine, to hold office until December 31, 1911. The annual stipend is 100*l*. Candidates are requested to send their applications, with testimonials, on or before Tuesday, March 12.

Prof. A. C. Seward, professor of botany, has been nominated to represent the University at the celebration of the three-hundredth anniversary of the death of Ulisse Aldrovandi, to be held in Bologna in June.

The council of the Senate has appointed Prof. G. Sims Woodhead as the representative of the University of Cambridge on the council of the Lister Institute of Preventive Medicine, in the place of the late Sir Michael Foster.

The general board of studies has appointed Dr. G. S. Graham-Smith to be university lecturer in hygiene for the five years from January 1, 1907, to December 31, 1911, and the appointment has been confirmed by the special board for medicine.

The governing body of Gonville and Caius College proposes in June next to make an election to the Sir Thomas Gresham research studentship in economics. The value of the studentship will be 120*l*. a year. Candidates for the studentship must be more than twenty-one and under twenty-five years of age on the first day of October, 1907. The election will not be made on the result of a competitive examination. Applications should be made before June 1 to the master (the Rev. E. S. Roberts), who will be glad to supply further information.

The general board of studies has received a memorandum from the board of agricultural studies embodying a statement presented to that board by the forestry committee of the board to the effect that the committee has during the past year made efforts to obtain such contributions from public bodies and individuals interested in the subject, and is able to report that the efforts have met with a gratifying response. The board is now assured of grants for various terms of years amounting to upwards of 500*l*. These there is reason to expect will in most cases be renewed. Donations or promises of donations have also been received from other contributors amounting to a considerable sum, and a beginning has been made in the collection of specimens for a forestry museum. The general board is of opinion that, for the proper organisation of this instruction, in addition to the teaching already provided in connection with the Department of Agriculture, the services of two special teachers are required. One of these should be a forestry expert, capable of assuming the general direction of the students' work, of advising the committee and other bodies, such as colleges and local education authorities, on technical subjects, and of promoting study and research in forestry. The board thinks that he should have the status of a reader, and should have a stipend of 400*l*. The other teacher should have a particular branch or branches assigned to him, and should be a university lecturer. The board of agricultural studies accordingly desires to submit a series of proposals to the Senate embodying these recommendations.

The appointments board has presented to the Senate the report for the year 1906. In the year ending December 31, 1906, 136 appointments were obtained on the introduction of the appointments board by graduates on the register. These appointments include appointments of a public character at home and abroad, as well as industrial and technical appointments, engineering appointments, administrative appointments on railways, appointments for scientific work of various kinds, and lectureships in university colleges. The board has decided in future to make recommendations for scholastic appointments, and some progress has already been made in this direction.

DR. J. M. BEATTIE, senior assistant to the professor of pathology, University of Edinburgh, has been elected by the council of the University of Sheffield to the chair of pathology in succession to Dr. Cobbett, who has resigned the chair on his appointment as lecturer on bacteriology at Cambridge.

AN official fellow in natural science will shortly be appointed by the principal and fellows of Jesus College, Oxford. The fellow will be expected to teach one of the larger subjects recognised in the honour school of natural science, to undertake the entire direction of the science tuition of the college, and generally to superintend the college laboratory, now in course of erection; this, when completed, will be adapted for the teaching of chemistry and physics. The stipend will be not less than 450*l*. per annum, together with the free use of rooms in college, and the usual allowances. Further particulars may be obtained by application to the principal, Jesus College, Oxford.

THE Copenhagen correspondent of the *Times* reports that at a meeting in that city on February 26 the proposal to establish a second university for Denmark at Aarhus, equal to that existing in Copenhagen, was supported by well-known men of science and politicians alike. Though the sympathy with the new university idea is very great, the correspondent says a Bill can hardly be laid before the present Parliament, which closes its session within four or five weeks. In view of the satisfactory state of the national finances, however, it is said to be probable that ultimately a new university will be erected at Aarhus.

THE Prince of Wales presided at a special meeting of the Royal Commission for the Exhibition of 1851 at Marlborough House on February 28, when a resolution was passed granting a site on their estate at South Kensington for the erection of the proposed Royal Institute of Technology. The commissioners have also granted a site on their estate for the Institute of Medical Sciences (University of London). It is understood that the site will be reserved for a period of one year, during which it is hoped that the additional sum of about 30,000*l*. required to build and equip the institute may be obtained.

A LETTER has been addressed to the President of the Board of Education, by the Vice-Chancellor of the University of London, expressing satisfaction that, although it has not been found practicable to accept proposals for the immediate incorporation in the University of the new technological institution at South Kensington, the course of action proposed will tend to facilitate the accomplishment at an early date of the objects the Senate of the University has in view. The Senate fully appreciates the disadvantages which would attend any further delay in the establishment of the new college. The Vice-Chancellor concludes his letter by expressing the hope that during the time before the appointment of the Royal Commission proposed by the President of the Board of Education, the new governing body and the Senate may find themselves, as a result of friendly discussion, in a position to submit to the Board joint proposals for complete incorporation, and so avoid the need for a commission.

THE late Mr. C. J. Oldham, a well-known ophthalmic surgeon, left large bequests for educational purposes. These gifts include:—10,000*l*. to the principal and three other members of the governing body of Corpus Christi College, Oxford, as trustees, to be applied as to one-third in the award of scholarships for proficiency in or furthering the study of classics, and as to the remaining two-thirds to be applied to the advancement of general learning in that college; 5000*l*. to the University of Oxford, 5000*l*. to the University of Cambridge, each of these bequests to be applied to the encouragement of the study of Latin and Greek and to the works of Shakespeare; and 3000*l*. to the Manchester Grammar School. The residue of the testator's property, which will apparently amount to between 15,000*l*. and 20,000*l*., is left as one-half to Corpus Christi College, Oxford, and one-half to Manchester Grammar School.

THE annual meeting of the Institute of Chemistry was held on March 1. Prof. P. F. Frankland, F.R.S., president, was in the chair. The report, which was adopted,

shows that the institute now has 1016 fellows and 177 associates. The president, in his address, said the most important feature of the year's work has been the inauguration of examinations in chemical technology. The council believes that the institution of these examinations will materially help fellows and associates to obtain employment in chemical industries. Another piece of work accomplished has been the publication of a list of official chemical appointments. Commenting on the value of the qualifications of the associateship and fellowship of the institute, the president showed how the examinations of the institute differ from those of the universities. The latter, he said, are contrived to test the amount of knowledge which a candidate has succeeded in bringing to a focus at a particular moment, while the main object of the institute's examinations is to test what the candidate can actually perform when he is placed as nearly as possible under the same conditions as he would be if working in his own laboratory and within reach of a good chemical library. The candidate who shines in the one will not necessarily shine in the other examination. The university graduate is more qualified to talk and to teach, but the overcrowding of his curriculum leaves him little time in which to practise and acquire technical skill, without which the institute's qualification cannot be attained. It is, Prof. Frankland said in conclusion, this practical character which must be preserved in the institute's examinations, so that fellows and associates may be known for the soundness of their judgment and for their capacity to perform chemical work upon which the public can place implicit reliance.

SOCIETIES AND ACADEMIES.

LONDON.

Faraday Society, February 19.—Dr. T. Martin Lowry in the chair.—The present position and future prospects of the electrolytic alkali and bleach industry: J. B. C. **Kershaw**. The paper opens with a brief historical review. The second part of the paper contains a list of the works now operating in Europe and America, summarising, so far as information is available, power used, type of cell and process employed, and products made. The totals show that about 55,000 h.p. are now being devoted to the production of alkalies and bleach by the electrolytic method, and that plant representing about 13,000 h.p. is lying in reserve. Assuming that all the plants are being worked to the best advantage, the production of 70 per cent. caustic soda at present would be about 110,000 tons per annum, with an equivalent of 231,000 tons of 35 per cent. bleaching powder (2 tons of caustic and 4.2 tons of bleach per E.H.P. year). In conclusion, the future of the industry is discussed.

Royal Meteorological Society, February 20.—Dr. H. R. Mill, president, in the chair.—Report on the phenological observations made during 1906 by observers in various parts of the British Isles: E. **Mawley**. The most noteworthy features of the weather of the phenological year ending November, 1906, as affecting vegetation, were the dry period lasting from the beginning of June until the end of September, and the great heat and dryness of the air during the last few days in August and the first few days in September. Wild plants came into flower in advance of their usual dates until about the middle of April, after which time they were, as a rule, to about the same extent late. Such early spring immigrants as the swallow, cuckoo, and nightingale reached these islands somewhat behind their average dates. The only deficient farm crop, taking the country as a whole, was that of hay, all the others being more or less above average. The yield of apples was about average in all but the north of England and in Scotland, where there was a very scanty crop. Pears and plums were everywhere very deficient, whereas all the small fruits yielded moderately well. As regards the farm crops, the past year proved even a more bountiful one than that of 1905.—The metric system in meteorology: R. **Inwards**. Attention was directed to the advisability of adopting some uniform system by all the meteorological observers upon the globe.

CAMBRIDGE.

Philosophical Society, January 28.—Dr. Hobson, president, in the chair.—Kanalstrahlen in helium: Prof. **Thomson**.—An experiment with a pair of Robison ball-ended magnets: G. F. C. **Searle**. A Robison ball-ended magnet AB is supported on a pivot O close to a drawing board, and a second Robison magnet CD, resting on the board, deflects AB. If p_{AC} denote the perpendicular from O upon AC, the turning moment experienced by AB is the resultant of the four moments $mm'p_{AC}/AC^2$, $mm'p_{AD}/AD^2$, $mm'p_{BC}/BC^2$, and $mm'p_{BD}/BD^2$, where m is the pole-strength of CD and m' that of AB. If h_A , h_B be the perpendiculars from A, B upon the line A_0B_0 , where A_0 , B_0 are the undeflected positions of A and B, the moment due to the earth's magnetic force, H , is $m'H(h_A + h_B)$. Equating these results, the value of m is found in terms of H and of the four distances AC ... and the six perpendiculars h_A , h_B , p_{AC} ... These ten lengths are measured on the drawing board.—A method of determining the thermal conductivity of india-rubber: G. F. C. **Searle**. Steam from a boiler passes through an india-rubber tube, part of the tube being immersed in water contained in a calorimeter. Since the conductivity of india-rubber (0.00042) is small compared with that of water (0.0013), the temperatures of the inner and outer walls of the tube may be taken as equal to θ_1 and θ_2 , the temperatures of the steam and of the well-stirred water in the calorimeter. The conductivity K is found from the rate of rise of temperature of the calorimeter by the equation

$$K = \frac{M}{2\pi l(\theta_1 - \theta_2)} \cdot \frac{d\theta_2}{dt} \cdot \log_e \left(\frac{a}{b} \right),$$

where M is the water equivalent of the calorimeter and its contents, a and b are the external and internal radii of the tube, and l is the length immersed.—A curvature method for measuring surface tension: C. T. R. **Wilson**. To measure the surface tension of mercury, a circular hole of about 1 mm. in diameter is made through a glass plate closing the upper end of a vertical tube. The tube is filled with mercury, and sufficient pressure is applied to give a suitable curvature to the meniscus projecting into the aperture. The curvature is measured by making the meniscus serve as a convex mirror. A microscope is focussed (1) on the centre of curvature (when a reflected image of the eye-piece cross-wires will be seen in focus); (2) on a fibre stretched just above the meniscus; (3) on the virtual image of the fibre formed by the meniscus. From the vertical displacements of the microscope between these three positions the radius of curvature is obtained. If the pressure be changed by a known amount between two such measurements of curvature the surface tension can be deduced.—The application of integral equations to the determination of expansions in series of oscillating functions: H. **Bateman**.

February 11.—Mr. D. Sharp, vice-president, in the chair.—The mode of formation of the initial cell-wall, the genesis and neogenesis of the connecting threads, and the method of connection of living tissue cells: Dr. W. **Gardiner**. Having summarised the existing theories as to the structure of the "initial-wall" of plant cells, and the current view expressed by Strasburger as to the development of connecting threads, the author stated that his own observations appear to prove that the above views are inadmissible.—The ethnology of modern Egypt: Dr. C. S. **Myers**. The measurements, notes, and photographs taken in this investigation lead to the conclusion (1) that, compared with the "prehistoric" people of 5000 B.C., the modern inhabitants show no sensible difference in head measurements or in the degree of scatter of individual measurements about their average; (2) that the modern Copts throughout Egypt are less negroid than the modern Moslem population; (3) that both the Copts and the Moslems in Upper Egypt are more negroid than those in Lower Egypt; (4) that from the anthropometric standpoint there is no evidence of plurality of race in modern Egypt.—Notes on the structure and behaviour of the larva of *Anopheles maculipennis*: A. D. **Imms**. The paper dealt briefly with the occurrence of the larva of *Anopheles maculipennis* in the neighbourhood of Cambridge, together with notes on its bionomics.